



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/643,716 | 08/19/2003 | Norihisa Sasano | 4041K-000147 | 5122 |

27572 7590 03/26/2007
HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

| |
|----------|
| EXAMINER |
|----------|

SWENSON, BRIAN L

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3618

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 03/26/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/643,716 | Applicant(s) SASANO ET AL. | |
| | Examiner Brian Swenson | Art Unit 3618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgment is made of the amendment filed on 2 January 2007 where:
 - a. Claim 1 has been amended.
 - b. Claims 1-7 pending in this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitations: "an inlet duct" and "air conditioner" were not found in the originally filed description.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the air conditioner" in lines 9-10. There is insufficient antecedent basis for this limitation in the claim. This limitation has not been examined, as there is no disclosed "air conditioner" in the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,058,558 issued to Ueda et al. in view of U.S. Patent No. 5,448,982 issued to Arakawa et al.

Ueda et al. teaches in Figures 1-16 and respect portions of the specification of a: vehicle front end structure comprising; an axial flow fan (52) having, in turn, a rotating shaft which extends in a longitudinal direction of a vehicle (see Figure 2) and adapted for supplying cooling air to a radiator (51); an intercooler (17; Figure 1) for cooling air drawn into an internal combustion engine; and an air cleaner (13), provided on a downstream side of an air flow relative to an inlet (Figures 1 and 2; the inlet is unlabeled but is inherently contained on the outer periphery of the air cleaner and connected to air intake duct 26) of the air cleaner from which air drawn into the internal combustion engine is introduced, for removing dust in the air so introduced, wherein the inlet of the air cleaner is positioned opposite to the intercooler across the axial flow fan as viewed in the longitudinal direction of the vehicle (Figure 1), the air cleaner is positioned at a location where the air cleaner deviates from the intercooler as viewed in the

Art Unit: 3618

longitudinal direction of the vehicle (Figure 1), the axial flow fan rotates in a direction which deflects an air flow blown out of the axial fan to an intercooler side (air will be blown to the left side of inter cooler 17 as viewed in Figure 2), and the inlet of the air cleaner is in communication with air at a location behind the radiator as viewed in the longitudinal direction of the vehicle (see Figure 2, where the inlet of the air cleaner (13) is connected to duct (air intake 26)).

As best understood, Ueda et al. discloses the claimed invention except for showing an inlet that receives air in a transverse direction. Transversely oriented air inlets are well-known in the vehicle art. Arakawa et al. shows a transverse air inlet (see element 15), which is shown located in a transverse direction (Y_1 — Y_2). It would have been obvious to one having ordinary skill in the art at the time of invention to locate the inlet port in a transverse direction, as taught by Arakawa et al. Such a modification would be within the level of ordinary skill in the art at the time of invention and one would be motivated to provide a transverse inlet to prevent debris, traveling in the vehicle's longitudinal direction, from entering the inlet.

In regards to claims 2 and 3, Ueda et al. discloses the claimed invention including showing a bell-mouth air guide (26) for guiding air in front of the vehicle to the intercooler (see Figure 1 where air enters the bell-mouth flows through elements (3,13,13,22,15,16) and enters intercooler (17)). Ueda et al. shows in Figure 2 the bell-mouth inlet (26) positioned above the radiator (51) but does not explicitly state if the bell-mouth is fastened on a radiator support or is made integral with the support. It would have been obvious to one having ordinary skill in the art at the time of invention to fasten the bell-mouth inlet to the radiator support to provide a secure mounting point to prevent vibration in the tubing line. It would have been obvious to one having ordinary skill in the art at the time of invention to form the bell-mouth inlet integrally

Art Unit: 3618

with the radiator support, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art.

In regards to claim 4, see Figure 2 of Ueda et al. where radiator (51) is shown parallel to fan (52).

In regards to claim 5, Figure 2 of Ueda et al. shows the fan is (52) located rearward of radiator (51) and obstacle (53) interrupts the flow of air rearward of the fan.

In regards to claim 6, Ueda et al. shows the inlet (26) of the air cleaner is made to open on an opposite side of the intercooler.

In regards to claim 7, Ueda et al. shows the axial fan will rotate to direct air rearwards toward the engine of the vehicle, by inspection Figure 2 shows the intercooler (17) is placed in front of the fan and therefore in front of the axial flow.

Response to Arguments

Applicant's arguments filed 2 January 2007 have been fully considered. As disclosed above the limitation "air conditioner" was not found in the originally filed specification.

Applicant's arguments, with respect to limitation of an inlet that receives air in a transverse direction, have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Swenson whose telephone number is (571) 272-6699. The examiner can normally be reached on M-F 9-5.

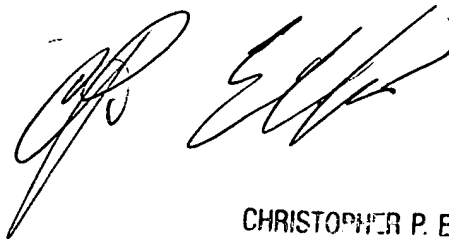
Art Unit: 3618

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 3/20/07
bls

Brian Swenson
Examiner
Art Unit 3618



CHRISTOPHER P. ELLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600